

U. S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

CLASSIFICATION ORDER 1838

AUGUST 3, 2004
Project No. Y6791

The following classification changes will be effected by this project:

	<u>Class</u>	<u>Subclasses</u>	<u>Ex'r Search Room No.</u>	<u>Art Unit</u>
Established:	977 (New)	Dig. 1	N/A	

There are no other classes impacted by this project.

Included in this project, sequenced as below are the following:

A. CLASSIFICATION MANUAL CHANGES;

CLASSIFICATION ORDER 1838

AUGUST 3, 2004
Project No. Y6791

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Editor: Varona Stevens

AUGUST 2004

DIGEST

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MISCELLANEOUS NANOTECHNOLOGY

Definition Established **NEW CLASS Established**

CLASS 977 - NANOTECHNOLOGY

This class provides for disclosures

- a. related to research and technology development at the atomic, molecular or macromolecular levels, in the length of scale of approximately 1-100 nanometer range in at least one dimension, and
- b. that provides a fundamental understanding of phenomena and materials at the nanoscale and to create and use structures, devices, and systems that have novel properties and functions because of their small and/or intermediate size.

In addition, disclosures in this class may be defined by one or more of the following statements.

- a. The novel and differentiating properties and functions of disclosures in this class are developed at a critical length scale of matter, typically under 100 nanometers.
- b. Nanotechnology research and development includes manipulation, processing, and fabrication under control of the nanoscale structures and their integration into larger material components, systems and architectures. Within these larger scale assemblies, the control and construction of their structures and components remains at the nanometer scale.
- c. In some particular cases, the critical length scale for novel properties and phenomena may be less than 1 nanometer or be slightly larger than 100 nanometers.
- d. The novel properties or functions, e.g., special effects, are attributed to and are intrinsic at the nanoscale.

Such nanoscale materials are infinitesimally minute arrangements of matter (i.e. nano-structural assemblages) have particularly shaped configurations formed during manufacture and are distinct from both naturally occurring and chemically produced chemical or biological arrangements composed of similar matter.

- a. Also, encompassed within this collection are disclosures related to the controlled analysis, measurement, manufacture or treatment of such nano-structural assemblages and their associated processes or apparatus specially adapted for performing at least one step in such processes.
- b. Novel and differentiating properties and functions relate to the altering of basic chemical or physical properties of the nano-structural assemblage attributed at the nanoscale.